

EXHIBIT A.521

(15 of 17)

Table 8.3
Teachers and Principals by Level and Gender, 1996–1997

	Teachers				Principals			
	Male	Female	Total	Percentage Female	Male	Female	Total	Percentage Female
Preschool	5	2,372	2,377	99.8	17	561	578	97.1
Basic	8,116	7,785	15,901	49.0	523	506	1,029	49.2
Basic and secondary	4,140	3,243	7,383	43.9	243	151	394	38.3
Secondary	411	158	569	27.8	20	9	29	31.0

SOURCE: PCBS and Palestinian MoE (1997).

Table 8.4
Distribution of Basic and Secondary Teachers by Education Level and Gender, 1998–1999

Education Level	Male	Female	Total	Percentage Female
Secondary or less	289	454	743	61.1
Lower diploma (two years) ^a	5,702	7,091	12,793	55.4
Bachelor's degree	7,591	5,885	13,476	43.7
Higher diploma (one-year postgraduate)	111	33	144	22.9
Master's degree and above	240	65	305	21.3

SOURCE: PCBS, 1999b.

^a Lower diploma is a technical term for a two-year degree, similar to the U.S. associate's degree.

Financing

Palestinian education is financed through a mixture of direct budget appropriation, donor support, and, at the tertiary education level and in private schooling, student fees. National budget allocations are used almost entirely to cover salaries; most other costs (including development, research, training, and equipment) are covered by external funding (PA, 2000, p. 10), which may be project or task specific or may cover multiple activities in a subfield. This international support is a mix of grants and loans.

UNRWA schools are funded from the agency's budget, derived from contributions from United Nations member states. The agency has been struggling with a significant budget shortfall of between \$50 million and \$70 million annually since 1993 (UN, 1999), which has limited its ability to implement programming.

Between 17 and 18 percent of the PA 2004 budget is allotted to education,²⁴ up from 13 percent in 1999–2000 (PA, 2000, p. 10). This nearly 20 percent commitment

²⁴ Presentation by Dr. Akram Hammad, Deputy Financial Manager, Ministry of Education during the December 17–18, 2003, Mezan Center for Human Rights conference on the Palestine Authority's 2004 Budget. See http://www.mezan.org/site_en/budget_conference/1st_day.php.

is comparable to spending in other Middle Eastern states, and well above the developed country average of 4 percent in 2001 (UNICEF, 2004).

Strengths and Challenges Regarding Future Development

When measured against the ideals for access, quality, and delivery, the current status of Palestinian education raises significant concerns. Many of these concerns are due to the present environment of crisis and as such may be ameliorated significantly by a transition to statehood and relative stability. Others, however, are more embedded and will require

Table 8.5
Current Status of Palestinian Education

	Present	Limited but Emerging	Limited and Declining	Absent
Access				
Enabling environment (shelter, nutrition, and health)			X	
Quality early childhood opportunities		X		
Parent and community support	X			
Supportive leadership	X ^a			
Equity in access	X			
Physical proximity of schools to residences	X ^b			
Adequate and appropriate facilities and supplies			X	
Safe schools and routes to schools				X
Quality nonformal education for school-age students				X
Lifelong learning opportunities				X
Quality				
Clear goals and expectations			X	
Relevant curriculum with local, national, and global content		X		
Schools that support civic development and engagement		X		
Flexible system, including research and development			X	
Motivated, trained, and well-compensated staff		X		
Pedagogy that matches system goals		X		
Process and outcome evaluation and monitoring		X		
Delivery				
Accountable, flexible, and responsive governance		X		
Sufficient funds				X
Adequate data for system improvement				X

^a As we discuss below, support at the policy level is not necessarily consistent with action at the implementation level; this is thus only a relative strength of the system.

^b Strength in this area is challenged by the isolation of communities from schools in the area of the West Bank separation wall, as noted in the "Historical Development of Palestinian Education (1517–2004)" section of this chapter.

substantial, sustained efforts to be resolved. The system also has a number of strengths, which will provide bases for action following statehood if they can be preserved.

Mapping the current state of Palestinian education against our earlier set of indicators of a successful education system (see Table 8.5) creates a portrait of a system that is mixed on access (but with significant strengths in that area), struggling on quality (but with general upward momentum), and weak in delivery (mostly as a result of a lack of sufficient and reliable funding).

Foundations to Build On: Strengths of the System

Clearly, Palestinian education has a number of strengths that will provide a solid foundation for the system in the first years of statehood. In this subsection, we explore these strengths in more detail and consider what their value to a new Palestinian education system might be.

Identified system strengths include the following:

Access

- Commitment to equitable access and success in achieving gender parity
- Strong community support for education
- Leadership that is supportive of both system expansion and system reform
- Awareness of the importance of early childhood experiences in developing school readiness.

Quality

- Willingness to engage in curricular reform and vigorous debate around the nature of that reform
- Strong interest in improving pedagogy and a range of resources for doing so
- Commitment to improving the qualifications and compensation of staff
- Perception of schools as a key location for the development of students' civic skills and engagement.

Delivery

- Management ability and transparency
- Solid data collection infrastructure and collaboration in analysis.

Access Strength: Equity and Universality of Access. The high level of access to education across all sectors of society has produced levels of literacy and of overall education in the population that are among Palestine's greatest assets in the transition to statehood. Literacy stood at 96.3 percent for men and 87.4 percent for women over age 15 in 2003; these figures are notably higher than those for the Arab states as a group, developing countries overall, and lower-middle-income countries as a group, and they approach overall literacy rates in developed countries as a group (PCBS, 2004a; World

Bank, 2004). The significant gains made in educating girls and women are one of the system's particular strengths. Indeed, female literacy rates in Palestine "increased 8-fold" between 1950 and 1990 (Heiberg and Øvensen, 1993) and girls rose from 3.5 percent of the total school population in 1950 to 49.9 percent in 1999 (UNRWA, 2004b; Birzeit University, 2002, pp. 29 ff). These figures represent a level of female participation far above that of many of Palestine's neighbors. This initial footing of broad access and gender equity bodes well if it can be maintained and if quality can be addressed with equal vigor.

The high level of access to Palestinian tertiary education can also be an asset to the system if these institutions are developed appropriately. If tertiary sector growth occurs in consort with careful cross-sectoral planning, it can be a strong contributor to the development of indigenous research and development capacity and to the expansion of the Palestinian knowledge economy. Indeed, Palestinian knowledge capital will likely be the new state's greatest resource. (For more detail on the Palestinian economy, see Chapter Five.) Seven percent of the total population had tertiary education as of 2003 (PCBS, 2003b), and the high levels of advanced education among some groups in the Palestinian diaspora have the potential to also contribute significantly to development if enabling conditions are created following statehood.²⁵

Access Strength: Strong Community Support for Education. In a context of uncertainty and social upheaval, the consistency and variety of community support for education in Palestine are notable. This support is both principled and practical: Education is seen as a key point of leverage for individual and national development (Van Dyke and Randall, 2002; Birzeit University, 2002 and 2004), and there is a strong tradition of the community providing resources to supplement the low-quality education provided by governing authorities, as we discuss below.

Educational NGOs and other civil society groups have long served as active and generally constructive partners of the Palestinian education system, supplementing gaps, improving quality, and providing coping mechanisms when the regular systems broke down or were impaired by periods of conflict. In fact, community actors and their supporters claim that nongovernmental and civil-sector educational institutions were

behind all of the concrete positive developments in the period 1967–1994 . . . [including] (1) the introduction and spread of higher education, (2) the spread and the improvement of the quality of early childhood programs, (3) the spread and the improvement of the quality of adult education programs, (4) the spread of programs of education for children with special needs, (5) the introduction of pilot programs to improve the quality of formal schooling, and (6) activities designed to . . . network with educational institutions abroad (Mahshi, 2000, p. 5).

²⁵ UNDP's successful recruitment of expatriate Palestinian professionals to provide short- or long-term technical assistance for Palestinian development following the 1993 Oslo Accords is one institutional example of such contributions (see United Nations Development Programme/Programme of Assistance to the Palestinian People, undated).

In an environment of open debate around educational development, these organizations can serve as partners in setting priorities and negotiating action. They also provide important complementary capacity to governmental institutions, in both the short and long terms.

More broadly speaking, the generally high value placed on education in the Palestinian community, and that community's historic willingness to sacrifice and adapt as necessary to attain greater access and quality (see, for example, Fahsheh, 1993; Heiberg and Øvensen, 1993; Mahshi and Bush, 1989), can provide a cushion of trust to support experimentation and innovation in the early years of statehood. Community awareness of educational issues is generally high, and opportunities for engagement already exist, particularly through the media (as in the case of the monthly educational supplement to the *Al-Ayyam* newspaper that is prepared by the Palestinian Educational NGO Collaborative). Communities have also shown willingness to contribute significant resources to the development of education, particularly in the early childhood sector, where many kindergartens are community sponsored or supported (Christina, 2004). This extant capacity for community involvement could be tapped to build partnerships for development in the future.

Access Strength: Supportive Leadership in the Ministry of Education. The MoE has supported reform efforts by soliciting a variety of input to the educational development process, both through the activities of personnel who represent a range of positions and by opening its work to community scrutiny (Lempinen, 2002). Indeed, of all Palestinian government institutions, the MoE enjoys one of the most positive reputations for interaction with community groups, critics, and activists (Birzeit University, 2002).²⁶ These processes resulted in the "Five Year Plan for 2000–2005," an integrated, cross-sectoral plan for educational development judged to be reasonable and professional by local and international observers (Birzeit University, 2002, p. 100). This initial footing of trust and general openness provides a critical foundation for dialogue about change and (if it can be maintained) for working productively across actors in the education sector to implement reform plans in the future.

Access Strength: Awareness of Early Childhood Education and Development As a System Support. Although access to early childhood services in Palestine is limited, and access to quality services more so, there is an awareness at both the policy level and within the community of the importance of this sector to later student success that bodes well for system development. As Christina (2004) notes, early childhood NGOs, both indigenous and international, are active and vocal, particularly around crucial issues of quality and developmental appropriateness, and services for the group of children under six have boomed in the past decade. While limited Ministry of Education

²⁶ Again, this positive reputation is relative to the negative reputation of some of the other government offices. The quality of this reputation is also lower at the implementation level, in schools and the regional directorates, than at the policy level, which presents a challenge to change.

and Ministry of Social Affairs budgets have to date prevented government sponsorship of early-childhood programs (with the exception of two model kindergartens), cross-MoE collaboration in the National Plan of Action for Palestinian Children provides an important foundation for later action in this arena (PA, 1996 and 1999).

Quality Strength: Willingness to Reform Curriculum and Efforts to Do So. PA schoolbooks and the values being taught in the Palestinian curriculum have come under sustained scrutiny and been the subject of considerable controversy, but the willingness of the Palestinian educational community to engage in a process of both internal debate and external collaboration is notable and indicates an engagement with issues of quality and purpose that will be essential to the success of any state system of education.

The curriculum development process was initiated in 1995 through the work of the independent Palestinian Curriculum Development Center (PCDC), a collaborative effort of local experts funded largely by the Italian government. In general, the result of these efforts (PCDC, 1996) has been judged acceptable by most neutral observers,²⁷ and it has been found to be compatible with the integration of Palestine with the international community and markets (Moughrabi, 2002). However, the later incorporation of the curriculum development project into the Ministry of Education has slowed the progress of reform and, according to local critics, retained a traditionalist bias in the depiction of gender roles (Jerbawi, 2002, as cited in Moughrabi, 2002; Birzeit University, 2002) and discouraged the development of critical thinking (Birzeit University, 2002).

Politically, the curriculum, including the language and images used in textbooks, is likely to continue to generate disagreement, both among Palestinians and internationally. Concern that educational resources will be used not to promote but to hamper the development of stable and peaceful relations with the new state's neighbors are frequently aired, with critics focusing primarily on the content and focus of the history, geography, and religion curricula. However, neutral analyses appear to indicate progress, if somewhat erratic, in the integration of themes of tolerance, pluralism, and nonviolent resolution of conflict (see, e.g., Firer and Adwan, 2004; Georg Eckert Institute, 2004;²⁸ and Pingel, 2003). Even the system's critics seem to agree that "the new textbooks, in contrast to the old Jordanian and Egyptian ones, no longer contain any of the prejudices generally derogatory to the Jews or Israelis, or anti-Semitic stereotypes" (Livnat and Rasmussen, 2002). Certainly there is considerable pressure within the Palestinian and international educational community for a curriculum that is supportive both of internal democratic development and the stable integration of Palestine

²⁷ See, for example, Brown (2003); Morena (2001); Livnat and Rasmussen (2002); and Israel/Palestine Center for Research and Information (2003).

²⁸ A range of reports on current texts is available through the comparative textbook analysis project of UNESCO and the Georg Eckert Institute; see <http://www.gei.de/english/projekte/israel.shtml>.

into the region (Brown, 2003; Moughrabi, 2001 and 2002; Van Dyke and Randall, 2002; and Velloso de Santisteban, 2002).

Preparing curricula when borders are unclear, conflict is ongoing, and future circumstances are uncertain is a daunting task. Cultivating pride and national identity in Palestinian children while also addressing concerns about responsible global citizenship are significant challenges. The successful management of these issues in both political and in pedagogical terms will be critical for the development of a stable and democratic Palestinian state, and it will be an essential test of the education system's strength and resilience in the face of change.²⁹

Quality Strength: Strong Interest in Improving Pedagogy and a Range of Resources for Doing So. A vigorous debate exists within the Palestinian community about ways to move the education system forward and align it more closely with international standards of best practice for pedagogy (Coalition of Palestinian Educational NGOs, 1999; Christina, 2004; Nasru, 1993; PCDC, 1996; Rigby, 1995; and Van Dyke and Randall, 2002). Participants in this debate include intellectuals; prodemocracy activists with an interest in educating critical, participatory youth; education specialists (many with international training and experience and a desire to import state-of-the-art learning methods); and reform-minded teachers (Brown, 2003, pp. 151 ff). These parties have developed connections with regional and international nongovernmental organizations and other actors in the educational development field, and they provide a rich resource base for indigenizing good practice.

Quality Strength: Commitment to Increasing Staff Qualifications and Compensation. Increased standards for preservice teacher training (the minimum requirement for new teachers in both MoE and UNRWA schools has been raised to a bachelor's degree), and efforts at expanding in-service training programs through the Ministry of Education and UNRWA have provided important foundations for quality development in Palestinian education. UNRWA schools, in particular, benefit from the focused in-service training programs of the agency's Educational Science Facilities in Jordan and the West Bank and from school-level programming designed by the Institute of Education at UNRWA headquarters in Amman. These institutions offer regular short courses and (in Jordan, but accessible to teachers from the West Bank and Gaza) a three-year in-service program to upgrade staff to the bachelor's level. Six hundred preservice and 334 in-service teachers were enrolled in programs in the West Bank and Gaza in 2004 (UNRWA, 2004c).

Movements toward greater salary parity between UNRWA teachers and those in government schools have also alleviated to some extent the tensions between staff in the

²⁹ We note that the potential for education to serve as a mediating engine of democratization is sharply limited by context. "Progressive" curricula are challenged by the Palestinian experience of multiple forms of authoritarianism and violence, and their effect on youth is confounded by other social pressures (as we discuss in the section of this chapter on challenges to education). Willingness to reform curricula is thus only a relative strength of the system; even under the assumption of a cessation of hostilities with Israel, educational efforts must be tied to broader changes in the discourse and practice of governance in a context of economic improvement.

two sectors, although a gap remains (UNRWA salaries are higher). The PA is also, in principle, committed to raising teacher salaries³⁰ to more accurately reflect the professional status of employees in the face of high costs of living. Such a move would provide both an incentive for high-achieving youth to enter teaching and an alternative to lucrative private tutoring that currently diverts teachers' energy from their primary jobs.

Quality Strength: Vision of Schools As Civic Development Centers. Players in Palestinian education clearly conceptualize schools as centers of civic development and the cultivation of social responsibility (see, for instance, Coalition of Palestinian Educational NGOs, 1999; Moughrabi, 2002; Nasru, 1993; Van Dyke and Randall, 2002). While there are varying visions of those responsibilities and of appropriate civic participation, interest in maximizing the role of schools as shapers of civic identity and action is a strong resource for future system development. Civics has already been introduced into the curriculum, and the development of that component and related pedagogy for the system at large will be an important support for the MoE goal of the education system's "evol[ution] into a major social institution contributing to democracy and the transfer of cultural experiences" (Palestinian MoE, 2000).³¹

Delivery Strength: Management Ability and Transparency. By and large, Palestinian education is considered to be well-managed, and its reputation is better than that of the education bureaucracies of many other Arab states (see, for example, Ahed-Ahmad, 2002, p. 11). Those responsible have shown a willingness to confront the system's problems, to diagnose them accurately, and to make plans to resolve them,³² although the MoE's ability to follow through on these plans has been much more limited, for a number of reasons (see below). Indeed, the "education sector seems to be a step ahead of other sectors in the country" (Lempinen, 2002, p. 7) in terms of management capacity.

These impressions are shared by both Palestinians at large and by the international community. A 2001 study concluded that "the MOE is regarded [by Palestinian educational experts and teachers] as effective and its Five Year Plan is so far considered to be proving successful" (Jerusalem Media and Communication Centre, 2001). Palestinian public opinion data, which rank educational institutions as the institutions most trusted by the Palestinian people, also support a view of the education system as reliable (Birzeit University, 2003 and 2004). The World Bank, traditionally cautious in its praise, has lauded the ability of the Ministry of Education to focus its resources intelligently and to do the best job possible given its financial constraints (World Bank,

³⁰ In practice, teachers have been jailed for striking to demand those higher wages, have taken pay cuts along with other civil-sector employees, and have had salaries unpaid for periods during budget crises. This is thus only a relative strength, and change is dependent on broader developments in the economy and in governance.

³¹ This process is subject to the constraints discussed above and the later sections of this chapter on challenges to educational development.

³² We chart the content of a number of these plans in Table 8.6.

1999b and c). This international and intercommunity confidence will provide an important boost to the system in the transition to statehood.

Delivery Strength: Established Data Collection Systems and Ongoing Analytical Efforts. The data collection and management system that links the Ministry of Education to the Central Bureau of Statistics is solid. Analytical efforts through the MoE, the Bureau of Statistics, and the Child Statistics Project provide an initial foundation for policy and practice changes.

Challenges

While the strengths of the Palestinian educational system are notable, particularly in the wake of years of struggle to maintain and enhance the system, it also faces a number of pressing concerns that will significantly affect development over the coming years. Here, we discuss these challenges and their implications for the system in greater detail, paying particular attention to those that may be rapidly ameliorated following a final settlement and those that will present longer-term problems.

Key concerns related to the current system include the following:

Access

- Lack of a generally enabling environment
- Inadequate basic facilities and supplies
- Unsafe schools and routes to schools
- Lack of special education options for students with special needs
- Lack of nonformal options for school-age children who are not in school or who are attending only part time
- Lack of lifelong learning opportunities.

Quality

- Lack of clear goals and expectations for the system, and little accountability
- Interest in pedagogical reform not matched by progress
- Limited relevance of secondary, vocational, and tertiary programs
- Limited research and development capacity and activity
- Low staff compensation; administrative “bulge” emerging
- Difficulty monitoring process and outcomes in a crisis climate.

Delivery

- Severely underfunded and donor-dependent system
- System data not linked to reform.

Access Challenge: Lack of Enabling Environment. With the Palestinian economy in disarray, standards of health, shelter, and nutrition are low and declining, particularly in Gaza and in West Bank villages. With research indicating the importance of

physical, psychological, and environmental health to school success, rising levels of malnutrition, homelessness, and general poor health (Abdeen et al., 2002) in the population are reasons for concern.

Indeed, the current economic conditions, although beyond the control of educational policymakers, create a context in which children dropping out of school becomes a necessity for many families. There is already a tendency to move boys from private schools to public schools to save tuition, and Palestinians who send their children to schools that charge fees are more likely to take their daughters out of school than their sons when finances are an issue (PCBS, 1998, pp. 5–57; UNICEF and Birzeit University, 2003). As family incomes continue to drop, young men leave school to seek any kind of immediate work, and young women are encouraged to marry (Farah, 2000). If these trends continue, they will eventually lead to a decline in the overall level of skills and education, and a downgrading of Palestine's human resources, as well as a regression from gender equity.

Pressure to choose work over school is a concern both for children's rights and for Palestinian social and economic development over the long term. In 2002, 2.8 percent of Palestinian children aged 10–17 were in the labor force. Half of these children worked for more than six hours a day (PCBS, 2004d, p. 16). These children were typically working instead of attending school. Indeed, in a 2003 study, 70 percent of working children were reported to be dropouts (UNICEF and Birzeit University, 2003, p. 24). These overall numbers represent the children who have *found* work. However, the number of children "looking for and ready to work" has in fact increased significantly in recent years, with a jump from 17.7 percent of those aged 10–17 in 2000, to 34.3 percent in 2001, to 41 percent in 2002 (UNICEF and Birzeit University, 2003, p. 16). While these figures are still relatively low for developing countries, they set a precedent for dropping out that is not consistent with Palestine's aspirations for developing its knowledge capital.

These numbers also have ominous implications for stability and social cohesion in a fledgling Palestinian state. Research indicates that while a family's stated reason for obliging or allowing a child or youth to drop out of school may be related to a concrete alternative plan, particularly to work, such a plan materializes only in about half of all cases. Approximately half of female dropouts marry or work within their own home to help the family, and only about half of male dropouts participate in the labor force (Egset, 2003, pp. 110 ff); the other half remains idle. This group, with neither education nor employment, presents a challenge to development and a potential social crisis.³³

Access Challenge: Inadequate Facilities and Supplies. The present infrastructure for Palestinian education is severely degraded. An UNESCO assessment prior to the outbreak of the current intifada noted that,

³³ For more discussion of the implications of such a "security demographic," see Cincotta, Engelman, and Anastasion, 2003.

[t]he present state of schools in the Gaza Strip is poor. . . . many school buildings have deteriorated so much that they need to be demolished or reconstructed, or completely renovated. With the [continuous growth] of the school population, additional schools will have to be built to relieve pressure on existing ones. Many schools in the West Bank are accommodated in rented buildings which were not built for educational purposes and many of the facilities are unsuitable" (UNESCO, 1997).

Infrastructure damage during the intifada, described above, has further eroded the capacity of the system to meet students' basic needs.

Although the Ministry of Education constructed 125 new schools and 1,824 school additions and renovated an additional 412 classrooms between 1994 and 1999, increasing the number of government schools by 10.4 percent (Palestinian MoE, 2004c, p. 16), this expansion nevertheless fell short of that needed to accommodate the growth in the school-age population over that period. The responses to this capacity problem have included enlarging class sizes and running schools in shifts. Neither of these approaches is optimal, and (as further explained below) the second appears to be more problematic than the first.

Observers note that UNRWA schools, with their high student/teacher ratio, nonetheless achieve better results (in terms of literacy and school persistence, as well as test scores) than government schools with slightly smaller class sizes, and they conclude that UNRWA's teacher training and teacher commitment may help compensate for large class size (Heiberg and Øvensen, 1993). Running schools on multiple shifts is more constraining. Accommodating double shifts requires changes to the curriculum, with the most commonly cut subjects being physical education, art, and computer training. The loss of these subjects has significant negative implications. Physical education and art instruction can play important compensatory roles in a context of restricted movement and omnipresent political violence and are known to be helpful to children in coping with stress and trauma (Arafat, 2003, p. 7). The achievement of computer literacy is considered to be a significant component of modern education, and one that will be important to future Palestinian development (Birzeit University, 2002; Palestinian MoE, 2000).

Access to technology and to basic educational resources is also a problem (Birzeit University, 2002; Palestinian MoE, 2000). Laboratory supplies and equipment are in scarce supply, and libraries in many Palestinian schools are under-equipped and often used as classrooms for lack of alternative space. Students from under-resourced schools are less prepared to enter scientific or technical tracks at the tertiary level, compounding the problem of lack of tertiary education relevance to the needs of the economy. In addition, while these resources are available in many private institutions, their absence from schools attended by less-privileged students raises equity concerns across the system. While the Ministry of Education has expanded computer access to 600 schools

through 2004,³⁴ fully articulating computer use with instruction and supporting more than basic computer literacy for students are challenges for the system.

Access Challenge: Unsafe Schools and Routes to Schools. Palestinian schools have suffered significant damage during the four and a half years of the current intifada, and concerns about the safety of children have contributed to dropout, particularly among girls at the secondary level. Secondary schools tend to be further removed from the students' residences; thus, they have been more affected by curfews and the insecurity of travel than the primary schools, which tend to be located in the students' villages or neighborhoods. The state of crisis has therefore contributed to a (it is hoped, temporary) reduction in gender parity, because when secondary schools become more difficult or dangerous to reach, parents are more reluctant to expose their daughters to risk than they are their sons (Save the Children, 2001). Indeed, concerns that schools cannot be reached safely may be the deciding factor in cases where families are already less inclined to support the continued education of girls, whose primary schooling is considered sufficient to equip them to be wives and mothers, and whose employment may be seen as infeasible or undesirable (Farah, 2000). Should this trend continue, the consequences on development of lower levels of education for girls and women would be serious, as discussed above.

In addition, the lack of safety takes a significant psychological toll on students and school staff. Pervasive fear, feelings of hopelessness, and lack of trust are psychological outcomes of the climate, and these have measurable effects on learning (Save the Children Alliance, 2001). The long-term implications of children's exposure to violence are of concern: Research on the educational outcomes of Palestinian children in school during and after the previous intifada indicates that the physical and psychological damage they suffered notably affected their learning and their social and interpersonal skills (Mansour, 1996; Baker, 1990). An entire generation of Palestinian young adults currently has experienced the traumas of the intifada of 1987–1993, with observable effects (Awwad, Dubrow, and Pinek, 1998; Garbarino and Kostein, 1996; Thabet, Mousa, and Kostanis, 1999); a second generation is now being exposed to even greater traumas, also with observable effects. A recent study by the Gaza Community Mental Health Center indicated that 55 percent of children in two of the most troubled areas of Gaza demonstrate signs of acute posttraumatic stress disorder, while 35 percent display moderate signs. Thirteen percent of the children in the study had registered a "sharp increase in mental and behavioral problems" (including problems in school) following Israeli bombardment of their neighborhoods (Gaza Community Mental Health Program, 2002). Peter Hansen, UNRWA's director general, refers to a "a tidal wave of traumatized children" (Hansen, 2003) moving through the system; the implications of this trend for internal and regional stability and for the development of human capacity in a Palestinian state are troubling, to say the least.

³⁴ See Palestinian MoE, undated.

Access Challenge: Lack of Special Education Services. The lack of capacity for diagnosis of children with special needs is a particular weakness of the system, given the concerns about physical and behavioral health impacts on education noted above. A significant number of Palestinian children are likely to suffer from undiagnosed physical, learning, or behavioral disabilities, which may lead to the poor performance that is cited by many of those leaving school as a key factor in the decision to drop out (PCBS, 1998, pp. 49–50). Social discomfort with identified disability is a contributing factor, but the lack of explicit programming for students with special needs and public awareness campaigns for such programming limits access for what is likely to be a significant segment of the population. Gifted students are equally unserved (Palestinian MoE, 2004c).

Access Challenge: Lack of Nonformal Education for School-Age Students. Programs of nonformal education for school-age children not currently (regularly) attending formal schooling (for example, working children, child detainees, and young mothers) are largely lacking from the MoE's current efforts. Working children note difficulties in attending school regularly and a lack of sympathy and flexibility on the part of teachers as key reasons for dropping out (UNICEF and Birzeit University, 2003). Young mothers typically lose opportunities for schooling with their peers, and those who wish to return to school are usually limited to adult education programs later in life. The child detainee population is small (248 pupils in long-term detention in 2002, and 561 in the justice system overall during that period) (PCBS, 2004d, p. 15), but it is a largely unacknowledged population in the MoE's documentation. For all of these groups, nongovernmental programs sponsored by external donors are the primary means of continuing education. Instability in such funding due to shifting trends in development practice and reductions in international assistance commitments more generally makes these opportunities uncertain, and a lack of common planning and shared standards for quality across nongovernmental programs raises equity concerns (Palestinian MoE, 2004c, p. 16).

Access Challenge: Lack of Lifelong Learning Opportunities. Lifelong learning opportunities are important in Palestine for two primary reasons: Dropouts who wish to return to education or upgrade their skills have few options (although those options are increasing), and illiteracy among older adults remains a problem.

Although Palestinian literacy rates overall are high, there is a substantial proportion of the older population, mostly female, that remains unable to read, write, or conduct basic mathematical operations. The literacy equivalency rate (the rate among females in relation to the rate among males, for all ages 15 and above) is 86.4 percent (Palestinian MoE, 2004c). As is the case in the rest of the Arab world, however, Palestinian illiteracy "is generally being eliminated through the education of the young, and not through effective adult literacy campaigns" (UN, 2000, p. 46). New curricula for adult education are being developed through the MoE, which as of 2002 was operating 58 literacy centers serving 1,600 students (Palestinian MoE, 2004c, p. 12), but most adult literacy efforts remain under the sponsorship of the nongovernmental sector.

Interface between these institutions and the formal education system is limited, and standards are not coherent (Palestinian MoE, 2004c).

Quality Challenge: Lack of Clear Goals, Expectations, and Accountability. Although management capacity at the Ministry of Education is in principle fairly strong (a notable number of upper-level staff have advanced degrees in education, and there has been an effort to invest in developing policy capacity), day-to-day policymaking, in the words of the World Bank, “tends to be ad hoc” (World Bank, 1999c, p. 46). There has apparently been limited success over the past several years in adhering to standards and processes for decisionmaking. This situation has largely but not entirely come about because the MoE has been operating in crisis mode since 2000, adapting to volatile immediate circumstances rather than planning for the long term in a coherent fashion. Efforts to articulate system priorities and translate them into medium- and long-range plans have been stymied by the emergency conditions, and the ambitious vision embodied in the MoE’s five-year plan of 2000 has been supplanted by the need to build bulwarks against continuing system decline.

Crisis conditions and limited capacity have also meant that expectations for system performance are still unclear. A rational and coherent set of learning standards for students does not yet fully underpin the curriculum, although expectations for outcomes by grade-level are under development. While decentralization of responsibility to schools is promoted and the Ministry of Education has mandated greater involvement of community members through the formation of parent-teacher councils for schools, there are no functional incentives or sanctions for school performance. The gaps in these areas between principles and practice make increased system accountability and related reform difficult.

Quality Challenge: Interest in Pedagogical Reform Not Matched by Progress. While both UNRWA and the MoE have placed pedagogical improvement on their lists of priorities and while they have begun to address teacher qualifications as a basis for that improvement, much remains to be done, particularly in MoE schools. The proportion of teachers meeting the qualification requirement of a bachelor’s degree is still only around 50 percent for MoE staff (Palestinian MoE, 2004c, p. 17; similar figures are not available for UNRWA teachers). While those with lower credentials may be aging out of the system, upgrading teacher education remains a significant challenge. Promotion standards for MoE teachers are minimal (World Bank, 1999c, p. 46), and in-service training has yet to reach the majority of that staff. UNRWA efforts, with a smaller pool of staff to serve initially, have been more successful (UNRWA, 2004c). In addition, research indicates that rote learning, authoritarian teacher-student relationships, and an absence of techniques that promote critical thinking and engaged learning remain the norm (Khaldi and Wahbeh, 2000; Moughrabi, 2002).

Quality Challenge: Limited Relevance of Secondary, Vocational, and Tertiary Programs. Significant problems of relevance pervade the secondary, vocational, and tertiary sectors of Palestinian education. These issues cut across public and private in-

stitutions and UNRWA, reinforcing each other to create highly unbalanced outcomes for the upper levels of the education system.

The core of the problem appears to be the vocational sector, which is generally held by Palestinian and international education experts to be one of the primary areas of weakness in the system as a whole and which appears to serve as much as a relief for unemployment as a contributor to national development (Birzeit University, 2002, p. 89). Programs are outdated, poorly linked to the labor market, and under-resourced (the World Bank bluntly states that “funding for public vocational training centers is insufficient to provide even minimal acceptable quality”) (World Bank, 1999c, p. 43). In addition, they are poorly coordinated. As Kouhail notes,

“[a] person can train to become a carpenter in more than 20 institutions. . . . One can become a carpenter in nine months, 11 months or 24 months. A person may train for carpentry in vocational secondary schools, or in a training center run by UNRWA . . . or quite a number of private institutions, each one using different curricula” (Kouhail, undated, p. 5).

The result of this sectoral disarray is that vocational programs in general are unappealing to students (Jacobsen, 2003, p. 92). Indeed, only 3.9 percent of Palestinian secondary students chose a vocational secondary option in 1999–2000 (PCBS, 1999a).

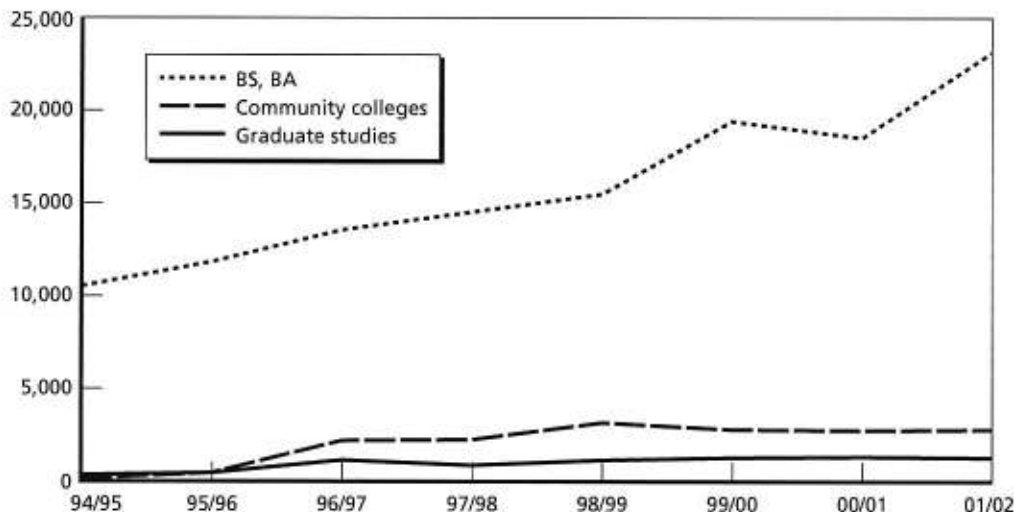
Vocational enrollment at the tertiary level is also limited. In 2001–2002, 73 percent of students graduating from secondary school were accepted into institutions of tertiary education—64 percent of those at universities and 9 percent at colleges (Hashweh, 2003, p. 6). These figures represent a strong preference among Palestinian students for study at universities or colleges rather than at vocational or technical institutions. This preference is historic, and the gap appears to be increasing, rather than decreasing, as indicated in Figure 8.1 (Palestinian MoE, 2003).

This large proportion of students entering universities and colleges creates a greater number of bachelor’s degree graduates than the labor market can absorb.

The tertiary sector also has problems of relevance and appeal. Sixty-nine percent of Palestinian tertiary education students were enrolled in the social sciences, humanities, and education in 2001–2002, with only 24 percent choosing the sciences (natural sciences, mathematics, computer sciences, medical professions, engineering, and agronomy) as an area of specialization (Palestinian MoE, 2003). Women are particularly absent from these fields, although their levels of enrollment are close to those of men overall (PCBS, 1998, pp. 60–63).

This imbalance is partly the result of tuition variations in tertiary education based on the field of study. Tuition is significantly lower in the liberal arts, which do not require expensive labs and equipment. The tracking system in secondary school also contributes to the imbalance, which pushes students (again, particularly girls) out of science specializations early in their academic careers and does not provide them with

Figure 8.1
Newly Enrolled Students in Higher Education Institutions, 1994/95–2001/02



SOURCE: Palestinian Ministry of Education and Higher Education. "Higher Education Statistics," 2003. Online at www.moe.gov.ps/Downloads/prosure.pdf (as of September 2004).

RAND MG146-B.1

opportunities to build the skills and knowledge base to reenter those areas in the university should they wish to do so (PCBS, 1998, pp. 50–56). Basing departmental admissions in large part on *tawjihi* scores also narrows the pool of entrants, because science faculties tend to require higher scores for admission than nonscience areas. Finally, the reliance on English as the dominant language of instruction in the sciences and a low capacity for English instruction at the basic and secondary stages further limit the eligible population for the sciences at the tertiary level.

These weaknesses highlight internal inefficiency and indicate the potential for the Palestinian education system to generate a large pool of educated unemployed or underemployed. However, the broader question of how directly and how strongly education is linked to earnings and social mobility in Palestine is equally important. Indeed, framing the question this way uncovers some interesting anomalies and raises more-substantive questions about education's contribution to development (Jacobsen, 2003, p. 93). For example, in the early 1990s³⁵:

24% of the heads of households [in Gaza] with post-secondary education [were] among the poorest one third and 39% [were] among the top one

³⁵ Patterns appear not to have changed substantially since that time, although exactly comparable data are not available.

third. . . . In Arab Jerusalem, of those household heads who have no education at all, a full 44% of them [were] also among the richest third of the population (Heiberg and Øvensen, 1993).

These data support assertions that in Palestine, as in much of the Middle East, kinship ties and the social placement of a family are as or more helpful in gaining employment and opportunities as skills. In the absence of a fully merit-based system of employment, education's power to support mobility is, and will continue to be, limited.

Quality Challenge: Limited Capacity for Research and Development. Crises in tertiary education financing (see below) and limitations on the import of technology and equipment limit the extent to which Palestinian universities can serve as sources of research and development. Human resources are available, but laboratories are under-equipped, information technology resources are tenuous, and infrastructure for experimentation is lacking. Conditions for conducting field research are also highly problematic. These gaps in the system are not consistent with the visions in Palestinian plans (Kouhail, undated; Palestinian MoE, 2000) for the state's development as a knowledge economy.

Quality Challenge: Low Staff Compensation Overall; Administrative "Bulge" Emerging. While the MoE has a stated commitment to implementing teacher raises in line with the civil service law, salaries in government schools remain well below levels needed to support most Palestinian families. Average government teacher salaries are about \$400 per month, and average salaries in UNRWA schools are slightly higher. Private school employees can earn significantly higher wages than those working for the government or UNRWA, but salaries are inconsistent across the private sector. Even prior to the current intifada, teacher salaries were only slightly above the poverty line of \$400 a month for a family of six (PA, 2000); declining economic conditions since 2000 have placed additional stress on families in this income bracket.

One result of poor compensation is that teachers often take on second jobs to provide additional income. These efforts tax teacher energy and divert attention from school responsibilities. In some cases, these jobs are unrelated to education. Many teachers, however, turn to private tutoring to add to family resources. This trend toward tutoring is negative for a number of reasons. First, like any other second job, it diverts teacher energy and time from classroom responsibilities and from out-of-classroom preparation and evaluation. Second, it inequitably distributes resources to those students able to pay for greater instruction, undermining system equity along class (and possibly gender) lines.

Finally, there appears to be a trend toward increasing administrative appointments (which are typically more highly paid than teaching positions) relative to those of teaching staff (World Bank, 1999c, pp. 46–48). This is partly because of the need to develop the capacity of the MoE and its directorates in areas that had not traditionally been staffed or were understaffed (such as special education, counseling, and kindergarten oversight). As the World Bank notes (1999c, pp. 46–48), rational growth

in these areas and across the administrative structure is necessary, but expansion of the educational bureaucracy beyond levels of efficiency threatens the system's internal alignment and the equitable distribution of resources.

Quality Challenge: Insufficient Monitoring of Process and Outcomes. Although the MoE's Assessment and Evaluation Center has begun an effort to track student performance in math, Arabic, and science, the examinations are still in their infancy and remain not fully supported by a coherent and challenging set of learning standards. Process evaluations of Palestinian education are essentially nonexistent, and there is little technical support and no concrete incentives for the practice changes promoted in teacher and administrator professional development.

Delivery Challenge: Underfunded, Donor-Dependent System. Current levels of funding for Palestinian education are barely maintaining the system's essential functions, and it is unlikely that even with greater internal efficiency the funds available to improve the system would substantially increase. Projected population expansion and an assumption by the PA of fiscal and structural responsibility over time for services now provided by UNRWA will further strain the system's budgets. Indeed, the World Bank has estimated that by 2020, the recurrent costs of basic and secondary education will range between 30 and 60 percent of the PA budget (World Bank, 2000, p. 1).

Tertiary funding presents an additional challenge. The tertiary education sector was initially supported with foreign donor resources, but when these were reduced in the 1990s, tertiary education became largely tuition based. As poverty has increased and the job market for graduates has collapsed, this system has become nearly untenable. Indeed, the 2002 UNDP (p. 106) human development report states flatly that "there are questions about the ability of the Palestinian higher education sector to survive."

External donors provide major financial support for the operation and development of the Palestinian education system across all educational levels. These donors include bilateral governmental aid agencies, multilateral organizations, and major established youth or education-related NGOs. A broad range of small NGOs and large numbers of religious, cultural, welfare, and political clubs, groups, and associations also contribute to some extent. Subsidies and scholarships, many from Arab countries and notably from Saudi Arabia,³⁶ have helped the tertiary sector to struggle along, but these stopgap measures do not put the universities on a solid financial footing. Certainly, a Palestinian state will not be able to fund its education system without the larger external donors, at least not in the near term. The small NGOs and the scholarship assistance to tertiary education have been and can continue to be important resources. However, there are pitfalls inherent in relying on external support to such an extent.

Although donors provide essential resources and funds, augment capacity, and assist in the development of transparency, a donor-driven system is not ideal for a

³⁶ In 2002, Saudi Arabia agreed to pay 75 percent of the tuition and fees for third- and fourth-year college students. See Del Castill (2002).

number of reasons. Sustaining donor interest and trust requires a substantial effort and diverts institutional resources away from the design and provision of education and toward the cultivation and management of donor partners. Donors often have specific areas of interest or constituent pressures that restrict how their funds may be used, and these priorities tend to drive rather than support educational development, with the result that recipient partners are less able to determine the shape and direction of the system than they might like (Patrick, 1998). Cobbling together donor-selected projects or responding to donor trends to form a coherent education system can be complicated and undermines efforts of central planning, coordination, and standardization. Previous efforts to develop a single system of project design, funding, and oversight for Palestine have been less successful than hoped and raise concerns about the utility of future international contributions (Brynen, 2000).

Indeed, the international community has notably reduced its commitment to the funding of educational development projects in Palestine over the last decade (Brynen, 2000), and long-term funding is not guaranteed. Major bilateral and multilateral donors are likely to be generous over the short and perhaps the middle term, but only if there is some assurance that their contributions will lead to a self-sustaining system in the future. Arab states are also eager, in principle, to help make a success of long-awaited Palestinian statehood but have been less forthcoming in actual disbursement of funds. Given their own social and economic problems, even nominal enthusiasm may not be sustainable over the long term.

Delivery Challenge: Limited System Data Are Not Linked to Reform. While steps have been taken to establish a strong and reliable data collection and analysis infrastructure (see “Quality Challenge: Insufficient Monitoring of Process and Outcomes” above), there are practical constraints on the collection of that data in crisis conditions, and the acute effects of the intifada on student and teacher populations create anomalies within the system. In addition, data use beyond the policy level is extremely limited. Decisionmaking at the school level is not data driven, and the capacity for many educational personnel to understand and use data for planning and school improvement is low. Finally, data on stakeholder satisfaction and perceptions of the system are limited and inconsistent, with no recurrent, systematic efforts to provide the community with a voice in the process.

Planning for the Future: Efforts to Date

Palestinian education has been the subject of a number of domestic and international analyses and planning efforts, both prior to and post-autonomy.³⁷ These documents

³⁷ See, for example: Palestinian Ministry of Higher Education, PA, and World Bank (2002); World Bank (1993 and 1999c); Kouhail (undated); Palestinian MoE (2000); UNESCO [1995 and undated(a) and (b)]; UN (1996); Nasru (1993); and PCDC (1996).

are generally serious efforts to build on strengths of and address concerns about the system's weaknesses and are valuable resources for approaching statehood. While planning at the Ministry of Education has been stymied by political and economic circumstances and the evolution of government infrastructure, its efforts and those of the Ministry of Labor and former Ministry of Higher Education (now absorbed into the Ministry of Education) have already laid the groundwork for much of what will need to be done once stability is achieved. In Table 8.6, we summarize the foci of the PA main educational planning efforts, relative to the indicators of system success identified in our analytical framework.³⁸

Clear expectations, supported by curriculum and instruction that are both locally relevant and internationally resonant, in a context of sufficient material and administrative resources to allow staff to focus on educating students are common ambitions across the range of major educational providers. This articulation of development priorities bodes well for the system and represents a strong policy platform on which to build.

Moving Forward: Recommendations for a Strong Education System in a Palestinian State

Clearly, Palestinians understand their greatest challenges, and they have developed a series of responses that are both reasonable for the near term and optimistic about the potential of education to contribute to a strong, healthy, and independent state over time. Indeed, our recommendations for approaches to be taken in the early years of statehood echo many of those already extant in government planning documents. Where we differ is in framing a set of recommendations that explicitly support the development of an "excellent" Palestinian education system—not one that is more cautiously cast as "good enough" for a society emerging from conflict. Moving away from minimal system maintenance and crisis management is essential if Palestinian education is to serve as both a catalyst for development and a source of internal stability. While we appreciate the challenges of implementing reform and the need to remain within saturation levels of capacity and funding, setting high standards and targets provides both a vision for future success and an indication by the government that it takes its commitments to its citizens seriously.³⁹

Based on the system's strengths to date and the challenges facing its development, we recommend that near-term efforts focus on three goals:

³⁸ We have not marked areas that were noted as concerns (for instance, the general environment and the safety of schools) but for which substantive plans for improvement were not or could not be made.

³⁹ The cost estimates we present following this section reflect this commitment to excellence. In costing, we do, however, offer a set of possible compromises, on the understanding that they would also be likely to turn the "excellent" Palestinian education system we model here into one that is "good."

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Table 8.6
Palestinian Education Planning Foci

	Five-Year Plan for Basic and Secondary Education, 2000 ^a	Proposed Direction for Higher Education/ Higher Education Financing Strategy, 2002 ^b	Vocational Technical Education and Training Plan, 1995 ^c
Access			
Enabling environment (shelter, nutrition, and health)			
Quality early childhood opportunities	X		
Parent and community support	X		
Supportive leadership			
Equity in access	X	X	X
Physical proximity of schools to residences	X		
Adequate and appropriate facilities and supplies	X	X	X
Safe schools and routes to schools			
Quality nonformal education for school-age students	X		
Lifelong learning opportunities		X	X
Quality			
Clear goals and expectations	X	X	X
Relevant curriculum with local, national, and global content	X	X	X
Schools that support civic development and engagement	X	X	
Flexible system, including research and development		X	X
Motivated, trained, and well- compensated staff	X	X	X
Pedagogy that matches system goals	X	X	X
Process and outcome evaluation and monitoring	X		X
Delivery			
Accountable, flexible, and responsive governance	X	X	X
Sufficient funds	X	X	X
Adequate data for system improvement	X	X	X

^a Palestinian MoE, 2000.^b Palestinian Ministry of Higher Education, PA, and the World Bank, 2002.^c Kouhail, undated.

- Maintaining currently high levels of *access*, while also working within resource constraints to expand enrollments in secondary education and early childhood programs.
- Building *quality* through a focus on integrated curricular standards, assessments, and professional development, supported by long-term planning for system sustainability and improved accountability mechanisms.
- Improving *delivery* by working with donors to develop streamlined and integrated funding mechanisms that allow the administration to focus on the business of meeting student needs, informed by strong evaluation and backed by significant sustained investment.

Maintaining and Expanding Access

As we have noted, the high levels of access to and participation in education at all levels are the Palestinian education system's greatest strength. Near-universal enrollment in basic education provides strong support for literacy and a solid foundation in skills that will be important for future social and economic development. High levels of access to secondary and tertiary education are a springboard for the development of a knowledge economy in Palestine and a potential source of significant indigenous development capacity.

Access to basic education should be maintained at its current level of near universality,⁴⁰ with development efforts at that level focused on meeting the unique access needs of students with special needs (currently notably underserved). Collaboration with the Ministries of Health and Social Affairs is encouraged for the development of programs of early diagnosis and intervention, as well as the provision of services. Previous success in raising vaccination rates through school and health sector cooperation provides a foundation for such efforts.

Access to secondary and tertiary education is complicated by quality and delivery factors, including the availability and appeal of vocational and technical training and the relevance of current tertiary education options to individual and societal development goals. Over-enrollment in the humanities and social sciences at the tertiary level and a strong preference for university study rather than other forms of tertiary education have resulted in a large number of highly educated unemployed, and they limit Palestine's ability to meet technical and service needs. Lower levels of female participation in secondary and tertiary science specializations are also a concern.

While investment in tertiary education is important, increasing the extent to which students are able to choose and complete quality secondary education (as preparation for tertiary schooling or for workforce entry) is essential if the potential of the

⁴⁰ Maintaining access should include efforts to reduce dropout rates, with a focus on school quality issues. However, as many dropouts cite noneducational factors (such as the need to find jobs to help their families) in their decision, expectations for rate reduction solely through school improvement should not be high.

tertiary sector to support development is to be fully tapped. We therefore recommend focusing access development efforts on secondary education programming, with a particular focus on the vocational and technical sector and the academic sciences. Specific quality choices that will support greater student preference for these options, once they are available, are discussed below. Costs of expanding access may be partially reduced by public-private partnerships with local industry and business (carefully designed, these efforts can also increase the relevance of programming and the employability of students upon completion).

A final area of access investment should be the development of the early childhood sector, which provides an important initial support for student learning and socialization. Addition of a kindergarten year to the public education system would bring the Palestinian system into line with those of more-developed states considered to be of excellent quality. As noted, public demand is high, and resources to support such efforts are present and available in the nongovernmental sector. These resources include facilities—contract, rental, or purchase of which by the Ministry of Education in the short term would provide immediate access and reduce cost.

All access development activities should be conducted in the context of a commitment to solid infrastructure. Adequate and appropriate classrooms, laboratories/workshops, libraries, and information technology resources must be available in all schools. System development should prioritize current efforts to upgrade facilities, with a significantly greater investment in infrastructure in the near term to repair and fully resource existing institutions and build sufficient new facilities to meet immediate needs and plan for projected growth.

Building Quality

Quality improvement in education requires integration and coordination of efforts to upgrade both services and staffing; attempts to address “problem” issues independently provide little support for overall systemic improvement and sustainability. In the Palestinian case, setting standards, developing assessments, and training and retraining staff have all begun but have not had the kind of sustained and substantial financial and logistical support that is needed for them to have deep and complementary effects on quality—partly because accountability mechanisms are largely lacking in the system. Coordinated long-term planning that links these efforts and provides significant allocation of funds to support them is essential to building an excellent Palestinian education system.

Highest-Priority Quality Recommendations: Standards, Assessment, and Professional Development Within an Accountability Framework. Standards for student learning across the system are in development. Efforts to ensure that those standards are internationally competitive and supportive of overall system goals—and that curricula reflect them—need to be prioritized. Outside interest in the Palestinian curriculum is unlikely to subside, and the PA will need to continue to participate in and sup-

port both local and international efforts at objective assessment of curricular content. The transparency of the curriculum development process to date should be supported as the remaining subjects and grade levels are brought on line. To support reflection on the performance of the system and improvement over time, efforts to develop assessments that are fully aligned with the learning standards should be a priority.

Standards and assessments for vocational and technical education are no less important than those for general education. The Ministry of Education should continue its efforts in collaboration with the Ministry of Labor to align program standards and content across providers and to raise expectations for learning and performance within the sector. To support relevance and integration, collaboration with private-sector businesses is important in this process.

Standards implementation will have little effect, however, if staff are not prepared to work effectively within the framework of expectations set by developers. Capacity development of teaching staff must therefore be a priority. While the MoE has provided training to thousands of teachers since 1994, the quality of that training and its ultimate consequences are uncertain. In particular, a lack of sustained technical support for the implementation of changes in pedagogy is likely to limit the extent of change in classrooms. Fully funding efforts to support reformed pedagogy at the school level—through such approaches as embedded training, teacher-to-teacher programs, or frequent follow-up—will be key to ensuring that the expectations for student learning are met. This is particularly true in the areas of participatory teaching and learning and of active, student-led investigation, which are articulated as goals but are rarely part of the culture of schools. Here, again, rich resources already exist in the local community, and efforts to work in closer collaboration with NGOs and other actors involved in rethinking pedagogy should be increased.

The capacity of staff in the regional directorates and in school administration to assist in the implementation of these policies is still limited, when compared to that of upper-level MoE staff. Building knowledge, skill, and will among these core constituencies will be essential to long-term embedding of educational change. Such efforts should not result in the expansion of the educational bureaucracy, however, as we note in our recommendations on delivery; rather, the focus should be on developing the instructional leadership and support capacity of current principals and regional supervision staff.

The development of a broader pool of quality instructors in English, the sciences, and information technology—three of the weakest yet most important areas of the system—is also essential. Such a process is complicated by the low salaries paid to teachers, which can prevent university graduates in noneducation fields from choosing teaching as a career option. Although the majority of system expenditures are already devoted to teacher salaries, compensation that allows staff in all areas to make teaching their only job and incentives that make the profession appealing are important investments in long-term system development and in the building and maintaining of

quality. Special investment (through salary bonuses or other incentives) in teachers of English, science, and technology may be effective as an additional recruiting tool and should be considered.

These efforts all require a context of increased accountability, with clear incentives for school performance that support changes in practice that have been shown to benefit students. Mechanisms for holding staff and schools accountable for performance and tracking their attention to system-wide and school-specific goals must be put into place if reform is to be systematic and productive.

Other Quality Priorities: Improving Quality for Both Genders and Improving Tertiary Education. Differential choices and experiences of girls and boys within Palestinian education are partly due to broader cultural preferences, but they are also shaped by institutional practices. From the significant differences in access to private schools by gender, to curricula that retain explicit and implicit biases against girls and women, to differences in pedagogy for boys and girls, to the tracking of female students away from the sciences and the tracking of boys into vocational education, quality is a gender issue. However, understanding of the mechanics of these system characteristics is still far more inferential than substantiated by research. More study of the barriers to and facilitators of female and male performance within the system is necessary, and it should be a core component of planning efforts related to curricula, pedagogy, and system structure.

Tertiary education quality is hampered by limited resources and a lack of productive exchange and cooperation within the tertiary education sector and/or with external partners. Programs that are heavily focused on the humanities and social sciences are cheaper to run but of inconsistent quality, and a focus on these areas limits the extent to which universities and other tertiary education institutions can contribute to a vibrant Palestinian economy and to the research and development base in Palestine and in the region—a contribution that could be important both to national development and to the positioning of Palestine as a knowledge exporter in the future. Such development efforts, however, should be undertaken with a long-term perspective, because the system needs strengthening in many other ways to support such development.

Developing more-sustainable financing for the tertiary education sector should be a priority, but care should be taken not to bias the system in favor of higher-income students (as discussed, one of the system's strengths has been its historic accessibility to students from all socioeconomic backgrounds). Subsidies for high-cost, high-priority specializations may be one way of balancing national need with student preferences and of minimizing the class effects of greater reliance on fees or loans to fund the sector (this of course presumes equity by class across the lower levels of the system, so that all students have access to the preparation needed to excel in these specializations).

Access should never be expanded at the expense of quality, particularly as increasing proportions of costs are passed on to students. Development of reasonable and coordinated accreditation for programs and a system of alignment that allows for

comparison across institutions is essential, and tertiary education expectations should be informed by learning standards for lower levels of the system.

Investment in technology and research infrastructure is also essential to raising the quality of the Palestinian tertiary education system. Public-private partnerships here—as in secondary-level vocational and technical education—are an important potential source of support for such efforts, although government oversight of such partnerships is necessary to keep the system focused on its primary clients (students). One key concern is the intellectual infrastructure for research and development. Limited availability of high-quality research in Arabic and weaknesses in instruction in English across the system undermine the quality of degrees in science and technology fields. Palestinian participation in regional efforts to upgrade Arabic-language research and development, increase translation of foreign-language research into Arabic, and broaden publication of research by local scholars will both enhance local capacity and extend the reach of the state's knowledge market.

Improving Delivery

The Ministry of Education's first priority must be meeting student needs—i.e., delivering high-quality services in a timely and accessible manner. Unfortunately, the government's dependence on donor financing for much of the system, which is unlikely to decrease in the near future, can make maintaining such a focus difficult. As discussed, conflicting donor interests, requirements, and procedures are significant burdens on the system, and they require the dedication of staff time to “donor management.” Working with donors to standardize and streamline funding and reporting procedures must be an essential component of system development.⁴¹

Such efforts should not, however, result in lower standards of transparency. The respect that the Palestinian education system enjoys among donors for its relative cleanness of funding and allocation is an important point of leverage internally and externally, and efforts to pare down budgeting and accounting complexity must protect that reputation.

Indeed, strengthening the system's evaluation mechanisms should be a focus of delivery efforts in the near term: Better evaluation will both encourage confidence and support program development. While the first priority should be the development of capacity at the system level, longer-term investment in initiatives that support data analysis and utilization at the school level can eventually shift some cost and control to that key constituency. Such efforts would be consistent with the system's broader goals of encouraging participation in public decisionmaking by a wider range of societal actors, and they will be important components of a developed accountability system.

Absorption of UNRWA schools and staff into the government system will need to be planned and conducted to maximize the retention of UNRWA's human and physi-

⁴¹ These efforts can also help to counter the bureaucratic bloat that appears to be beginning to emerge in the Ministry of Education.

cal resources. Equalizing salaries across sectors and facilitating the transfer of UNRWA staff to comparable positions when possible will be key to the success of this effort. The Ministry of Education should make every attempt to capitalize on UNRWA training infrastructure, which is currently of higher quality than that of the PA. Indeed, depending on the pace of system integration, shared training experiences for UNRWA transfers and Ministry of Education staff can serve as supports for system development that also function as induction and acculturation exercises. Absorption of UNRWA expertise should not be limited to school-level operations; MoE-level operations would benefit from the participation of the agency's trained administrators, staff developers, and public relations staff.

The foundation for the delivery of quality services to all students, however, is adequate funding, and the government's first priority should be soliciting and maintaining the budget required to support an excellent education system. Although current spending on education as a proportion of the national budget indicates its high priority, that investment must be increased and must be kept at sufficiently robust levels to meet both infrastructure and development/innovation needs of the system. To compensate for the substantial deficits in the current system, donors who hope to see a successful transition to statehood will need to increase their contributions in the early years.

Costs of Building a Successful Palestinian Education System

Spending on education has been a priority for both the PA and the United Nations, through UNRWA. The level of resources devoted to this sector has resulted in impressive achievements in educational services and participation, particularly considering the difficult circumstances that prevail in the Palestinian territories.

The world-class, universal education system described in this chapter is characterized by very high enrollment rates, measured as a percentage of the usual age group for each level of schooling. It also offers safe, high-quality facilities for learning and well-trained, motivated teachers. This preferred system relieves overcrowded classrooms and schools, allowing elementary and secondary class sizes to fall to levels prevailing in other countries with highly developed education systems (roughly 20 to 30 students per class). The preferred system also allows most school buildings to operate on a single shift per day, in contrast to the present situation.

Here, we first estimate approximate resources required to fund the system at a world-class, universal level (see Table 8.7). Then we compare these estimates to recent education spending in Palestine. We conclude with a discussion of possible compromises if full funding is not realized in the new state.

To estimate total required funding, we also need estimates of likely student enrollment under the assumption of a high-quality, well-functioning education system. The